Indiana GIS Initiative Newsletter

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Open Public Meeting Announcement

You are invited to attend the joint Indiana GIS Initiative and Indiana Geographic Information Council meeting Thursday June 17th, 2004 10am – 3pm (with a break for lunch). Please note: From 2 – 3pm, the meeting will focus specifically on IGIC business items.

The meeting will be held in the Lilly Auditorium on the IUPUI campus in downtown Indianapolis. Our host is David Lewis of University Library. Directions are available on the INGISI website calendar www.in.gov/ingisi.

Agenda
1. Presentation: "Jump-Starting Infrastructure Design" John Thomas, City of Lafayette.
2. Committee Reports
3. Progress Report on the 2005 Statewide Orthophotography Program and 2004 ODP Homeland Security Grants
4. Panel Presentation: "IndianaMap, Interoperability, and the Virtues of Data Sharing" Jill Saligoe-Simmel, IGIC; Phil Worrall, Innovative Mapping; and, Larry Stout, Hamilton County
5. Updates on The National Map, Charley Hickman, USGS
6. 2pm-3pm IGIC Business Meeting

$3.7 Million in Orthophotography Grants

$3.7 million in funding from the 2004 Office of Domestic Preparedness - State and Local Homeland Security Grant Program has been awarded to counties for a statewide orthophotography program to take place in 2005.

Each county will receive a set-aside grant toward updated orthophotography that meet a consistent statewide standard. Counties will participate in a memorandum of understanding with the State for the orthophotography program. Based on population, counties will receive 100% funding for either 1-foot or 1-meter orthophotography. The project will last from early 2005 until early spring 2006.

IGIC's Orthophotography Workgroup will work with the Counter-Terrorism and Security Council (CTASC) and the State to define specifications and the FRP for the program. For general questions about the Indiana 2004 State and Local Homeland Security Grant, please contact the State Emergency Management Agency Homeland Security Division (317) 232-3980.

More information will be made available as the program specifications and contracts develop, including a webpage on the INGISI site with the latest updates, fact sheets and contact information.

Jumpstarting Infrastructure Design

By John Thomas, GIS Coordinator, City of Lafayette

In 1998 the City of Lafayette began a study of its water distribution system with the goal of developing an organized infrastructure replacement program. In the older parts of town many of the water lines date back to 1875 and are in need of replacement. The City approached the issue from four directions.

We conducted a valve exercising and mapping program; a Leak Detection Survey; service call mapping; and identified flow restricted mains.
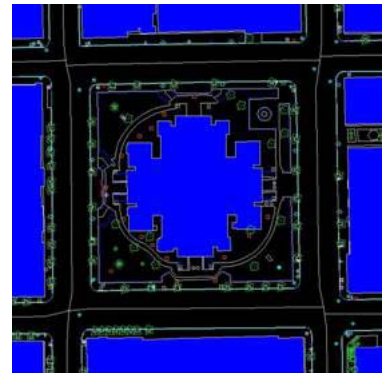
We used the information to establish priorities and contracted design drawings to address the most important needs. To hasten the construction schedule and minimize survey crew collection of file condition data, Hawkins Environmental, the design consultant, opted for 3" pixel orthophotography and all visible feature planimetrics to jump start the design process. This provided 1 foot contours along the City's riverfront as well as over 60 layers of different feature information! With this level of detailed information the city was able to jumpstart the design process, and begin constructing replacement water lines on a much accelerated schedule. After its acquisition (as is often the case with geodatasets) additional unforeseen uses for the data emerged which have served to increase the value of the dataset, particularly in the downtown.

Geospatial Data, Homeland Security, and Data Access

On March 25, the RAND Corporation released a report on homeland security implications for making geospatial information publicly available. The report, "Mapping the Risks: Assessing the Homeland Security Implications of Publicly Available Geospatial Information" (Report #MG-142) is available at: http://www.rand.org/publications/MG/MG142/. Anyone can download the PDF version for free at this site.

This report documents a RAND study that was sponsored by the National Geospatial-Intelligence Agency (NGA) and the study partner USGS, to assess the homeland security implications of publicly available geospatial information. Specifically, RAND researchers assessed whether and how geospatial data and information that is publicly available from U.S. federal sources can be exploited by terrorists and other adversaries seeking to attack U.S. critical infrastructure. The study also provides an analytical process that can be used to identify and evaluate potentially sensitive geospatial information.

Additional guidance is available from the report "Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns" recently release for public comment by the Federal Geographic Data Committee – Homeland Security Working Group http://www.fgdc.gov/fgdc/homeland/FGDC_access_guidelines.pdf.

2003 NAIP Orthophotography

The Natural Resources Conservation Service (NRCS) recently provided the first release of the 2003 National Agriculture Imagery Program (NAIP) county mosaics for Indiana in MrSID Generation 2 format (MG2). The Data Management Support Group (DMS) of Indiana University Information Technology Services converted these images to MrSID Generation 3 format (MG3) removing the "no data" regions. Users can now view adjacent county images seamlessly without black borders. The image cropping process required counties with elongated or irregular shapes to be split into two or three images.

The DMS website notes that ESRI users need to install a raster patch to view MrSID MG3 files in ArcGIS 8.3 (ArcGIS 9 supports MG3 format). The Natural Resources Conservation Service recently released Federal Geographic Data Committee (FGDC) compliant metadata specific for each MG2 county mosaic. This file includes source dates for each mosaiced quarter quad image. DMS extracted the source dates and has made the information available for download in addition to the FGDC files.

The uncompressed NAIP images are expected to be delivered to Indiana in late spring/early summer, and plans are underway for DMS to host an OGC-compliant Image Map Service.

Information regarding image and metadata download is available at: http://www.indiana.edu/~gisdata/naip2003.htm. If you need additional information, please send an email to uitsgis@indiana.edu.

Clear Vision of the NSDI

Several months ago, leaders of Geospatial One Stop, Federal Geographic Data Committee (FGDC), and The National Map began working together to better align their programs to avoid overlap and duplication and better serve the community.
April's issue of Geospatial Solutions contains an article outlining those discussions and decisions on how the three programs will work together more effectively and reinforce each other.

"A Clear Vision of the NSDI" is now online at http://www.geospatial-online.com/geospatialsolutions/article/articleDetail.jsp?id=89953.

History of a Statistic
Excerpt from an email by Stu Kirkpatrick, NSGIC Representative from Montana…

Congratulations to our colleague Larry Zink who was able to provide the best

documentation for my question as to where the statistic "75 to 80 % of all data has a spatial component" originated. Interestingly, this seems to be one of those statistics that has changed over time - kind of like going around the circle whispering a phrase in your neighbor's ear and watching how it changes when it gets back to the originator. Anyway, Larry cites the following sources in his master's thesis (Note - this is also corroborated by John Stachelhous of Rhode Island):

Excerpt from Larry K. Zink's Master's Thesis, A CASE STUDY OF A NEEDS ASSESSMENT PROCESS FOR A GEOGRAPHIC INFORMATION SYSTEM FOR THE NEBRASKA GAME AND PARKS COMMISSION.

"The potential of GIS for planning becomes clearer when one considers that it has been estimated that 70 to 80% of the activities of local governments and local planning agencies are spatially-referenced (Somers 1987, 1379; URISA 1990)."
Sources:

Somers, Rebecca. 1987. Geographic Information Systems in local government: A commentary. Photogrammetric Engineering and Remote Sensing. 53, 10: 1379-82.

URISA, The Urban and Regional Information Systems Association. 1990. GIS,   Government's Information Solution. Washington, D.C.: URISA.

But note how the phrase has been changed as evidenced by this ESRI white paper "Approximately 80 percent of all business data has a location component" or this from an ESRI PowerPoint " 80% of data is spatial in nature, more on the way every day" (thanks to Joe Holmes of Louisiana for providing these links). Many of those responding attributed the statistic to Jack Dangermond, but it seems he is only one of many paraphrasers.

So it appears we are all free to make it best fit our needs, recognizing the relevance, as Bill Johnson did, of the Mark Twain quote that there are in order "Lies, Damned Lies, and Statistics" or as David Arbeit called it an "apocryphal number".

HAZUS-MH Training

The Indiana State Emergency Management Agency is continuing to schedule multiple FREE HAZUS-MH related courses around Indiana. HAZUS-MH is FEMA's all-hazards software program for estimating potential losses from disasters. The following courses are recommended for GIS professionals and emergency managers – use the buddy system and plan to come together! Most courses are 2-3 days long from 8:30-4:30. If you would like to register for any of these courses, please contact Kathy Kalen at SEMA by phone (317) 233-4626 or at kkalen@sema.state.in.us. Courses fill quickly, so register early.

Additional offerings of these and other HAZUS-related course will be scheduled over the next few months.

GIScience Presentations

Archived web streams of presentations to the GIScience group are now available for viewing online. Links to a few are provided below.

"LUCI: Land Use in Central Indiana Model" John Ottensman, Professor of Public and Environmental Affairs, Associate Director, Center for Urban Policy and Environment, IUPUI
http://video.indiana.edu:8080/ramgen/vic/giscience_20040514.rm?start=00:

"Integrated Modeling with LUCI" Andrei Kirilenko, Research Associate, Department of Forestry and Natural Resources, Purdue University, West Lafayette
http://video.indiana.edu:8080/ramgen/vic/giscience_20040514.rm?start=00:

"Integrating Five Decades of Archaeological Survey Using GIS at the Angel Mounds Site, Indiana" Staffan Peterson
http://video.indiana.edu:8080/ramgen/vic/gi_science_20040305.rm?start=01